



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,566	05/10/2001	Takuya Oshima	112857-245	6260

29175 7590 12/07/2004

BELL, BOYD & LLOYD, LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135

EXAMINER

WORJLOH, JALATEE

ART UNIT	PAPER NUMBER
----------	--------------

3621

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,566

Applicant(s)

OSHIMA ET AL.

Examiner

Jalatee Worjloh

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-14 and 17-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-14 and 17-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 8, 9, 15 and 16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/11/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3621

DETAILED ACTION

Election/Restrictions

1. Claims 1-7, 10-14 and 17-28 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected 8,8, 15 and 16, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 2, 2004.
2. Applicant's election with traverse of claims 1-7,10-14 and 17-28 in the reply filed on March 2, 2004 is acknowledged.
3. The requirement is still deemed proper and is therefore made FINAL.
4. Claims 1-7, 10-14 and 17-28 have been examined.

Claim Rejections - 35 USC § 112

5. Claims 5 and 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, which depends on claim 1, recites "a third signature", in line 3; however, neither a first nor second signature is created in claims 1 or 5. How can a third signature be created without generating a first and second signature? Please revise claim 5 for clarity.

Art Unit: 3621

Claim 13, which depends on claim 10, recites “a third signature”, in line 3; however, neither a first nor second signature is created in claims 10 or 13. How can a third signature be created without generating a first and second signature? Please revise claim 13 for clarity.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1,10, 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by European Patent No. 0421808 A2 to Mansvelt et al.

Mansvelt et al. disclose a data storage device (i.e. “smart card”) in which value information is stored (see col. 3, lines 30-39), a client device (i.e. “card reader device”), provided with an information input and output function to the data storage device (see col. 3, lines 40-43), a store device (i.e. retailer’s POS) for providing at least one of commodities and services (see col. 4, lines 1-5), a communication system (i.e. “data network”) for connecting the client device, the store device, and the settlement management device so as to enable bi-directional communication (see col. 3, lines 48-51 and col. 4, lines 30-33), a settlement management device (i.e. financial institution’s FTM) for managing settlement between the data storage device and the store device, wherein the settlement management device creates, based on settlement request information from the store device, settlement information for making settlement by the data storage device (see col. 4, lines 34-46), subjects the settlement information to an encryption

Art Unit: 3621

processing by using a common key shared by the settlement management device and the data storage device, and transmits the settlement information subjected to the encryption processing to the client device, and wherein the client device outputs the settlement information received from the settlement management device to the data storage device (see col. 6, lines 32-56).

Referring to claim 10, Mansvelt et al. disclose a settlement information creation part (i.e. financial institution's FTM) for creating, based on settlement request information from the store device (i.e. retailer's POS), settlement information for making settlement by the data storage device (i.e. "smart card"), a settlement information encryption part (FTM) for subjecting the settlement information to an encryption processing by using a common key shared by the settlement management device and the data storage device and a settlement information output part (FTM) for outputting the settlement information subjected to the encryption processing to the data storage device through a client device provided with an information input and output function to the data storage device (see col. 4, lines 34-46 & col. 6, lines 32-56).

Referring to claim 24, Mansvelt et al. disclose a settlement information receiver part (i.e. smart card) for receiving settlement information, which is created by the settlement management device (i.e. FTM) based on settlement request information from the store device (i.e. retailer's POS) and is subjected to an encryption processing by using a common key shared by the settlement management device and the data storage device (i.e. smart card) and a settlement information output part (i.e. FTM) for outputting the settlement information received from the settlement management device to the data storage device (see col. 4, lines 34-46; col. 6, lines 32-56).

Art Unit: 3621

Referring to claims 25 and 26, Mansvelt et al. disclose a device for inputting settlement information, which is created by the settlement management device based on settlement request information from the store device and is subjected to an encryption processing by using a common key shared by the settlement management device and the data storage device, through a client device provided with an information input and output function to the data storage device, wherein the data storage device is an IC card (see col. 4, lines 34-46; col. 6, lines 32-56).

Referring to claim 27, Mansvelt et al. disclose creating settlement information for making settlement by the data storage device storing value information, based on settlement request information from the store device, subjecting the settlement information to an encryption processing by using a common key shared by the settlement management device and the data storage device (see col. 4, lines 34-46; col. 6, lines 32-56).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 17 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Linehan.

Linehan discloses a settlement request information creation part (i.e. “merchant’s computer”) for creating settlement request information, a first signature creation part (i.e. “merchant’s computer”) indicating validity of the settlement request information by using a private key of the store device (i.e. “merchant’s computer”), and a settlement request information transmission part (i.e. “consumer’s computer”) for transmitting the settlement request

Art Unit: 3621

information with the first signature to the settlement management device (i.e. "issuing bank") which can check validity of the first signature by using a public key corresponding to the private key of the store device (see col. 4, lines 10-28; col. 2, lines 40-42).

Referring to claim 22, Linehan discloses a store device (i.e. "merchant computer") for providing at least one of commodities and services based on settlement made through a settlement management device between the store device and a data storage storing value information, wherein the store device includes a settlement request information creation part (i.e. "merchant computer") for creating settlement request information, a first signature creation part (i.e. "merchant's computer") for creating a first signature indicating validity of the settlement request by using a private key of the store device, and a settlement request information with the first signature to the settlement management device (i.e. "issuing bank") which can check validity of the first signature by using a public key corresponding to the private key of the store device (see col. 4, lines 10-28; col. 2, lines 40-42).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2,3,5, 11, 13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansvelt et al. as applied to claims 1,10 and 28 above and further in view of US Patent No. 6327578 to Linehan.

Art Unit: 3621

Referring to claims 2,3,11 and 28, Mansvelt et al. disclose a store device, and a settlement management device (see claim 1, 10 and 28 above). Mansvelt et al. do not expressly disclose the store device creates a first signature indicating validity of the settlement request information by using a private key of the store device and transmits the settlement request information with the first signature to the settlement management device, and wherein the settlement management device checks validity of the first signature received from the store device by using a public key corresponding to the private key of the store. Linehan discloses the store device (i.e. "merchant's computer") creates a first signature indicating validity of the settlement request information by using a private key of the store device and transmits the settlement request information with the first signature to the settlement management device (i.e. "issuing bank"), and wherein the settlement management device checks validity of the first signature received from the store device by using a public key corresponding to the private key of the store, wherein the settlement request information with the first signature is transmitted to the settlement management device through the client device (see col. 4, lines 10-28; col. 2, lines 40-42). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Mansvelt et al. to allow the store device to create a first signature indicating validity of the settlement request information by using a private key of the store device and transmit the settlement request information with the first signature to the settlement management device, and wherein the settlement management device checks validity of the first signature received from the store device by using a public key corresponding to the private key of the store. One of ordinary skill in the art would have been motivated to do this

Art Unit: 3621

because it provides an additional level of security and prevents unauthorized individuals from access the settlement request.

Referring to claims 5 and 13, Mansvelt et al. disclose a settlement management device and a store device (see claims 1 & 10). Mansvelt et al. do not expressly disclose the settlement management device creates settlement completion information, creates a third signature indicating validity of the settlement completion information by using the private key of the settlement device, and transmits the settlement completion information including the settlement information and given the third signature to the store device, and wherein the store device checks validity of the third signature received from the settlement management device by using the public key corresponding to the private key of the settlement management device. Linehan discloses the settlement management device (i.e. "issuing bank") creates settlement completion information, creates a third signature indicating validity of the settlement completion information (i.e. "authorization token") by using the private key of the settlement device, and transmits the settlement completion information including the settlement information and given the third signature to the store device (i.e. "merchant's computer"), and wherein the store device checks validity of the third signature received from the settlement management device by using the public key corresponding to the private key of the settlement management device (see col. 4, lines 31-44; col. 8, lines 63-65; col. 2, lines 40-42). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Mansvelt et al. to allow the settlement management device to create settlement completion information, create a third signature indicating validity of the settlement completion information by using the private key of the settlement device, and transmit the settlement completion

Art Unit: 3621

information including the settlement information and given the third signature to the store device, and wherein the store device checks validity of the third signature received from the settlement management device by using the public key corresponding to the private key of the settlement management device. One of ordinary skill in the art would have been motivated to do this because it provides an additional level of security and prevents unauthorized individuals from access the settlement data.

12. Claims 4, 6, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansvelt et al. and Linehan as applied to claims 2,5,11 and 13 and further in view of US Publication No. 2002/0194121 to Takayama.

Referring to claims 4 and 12, Mansvelt et al. disclose a settlement management device and a client device (see claims 2 and 11 above). Mansvelt et al. do not expressly disclose the settlement management device creates a second signature indicating validity of the settlement information with the first signature by using a private key of the settlement management device, and transmits the settlement information given the second signature and subjected to the encryption processing to the client device, and wherein the client device checks validity of the second signature received from the settlement management device by using a public key corresponding to the private key of the settlement management device, and then outputs the settlement information to the data storage device. Linehan discloses the settlement management device creates a second signature indicating validity of the settlement information with the first signature by using a private key of the settlement management device, and transmits the settlement information given the second signature and subjected to the encryption processing to

Art Unit: 3621

the client device (see col. 4, lines 24-41). Takayama discloses the client device checks validity of the second signature received from the settlement management device by using a public key corresponding to the private key of the settlement management device, and then outputs the settlement information to the data storage device (see paragraph [0111], lines 22-28). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Linehan to allow the settlement management device to create a second signature indicating validity of the settlement information with the first signature by using a private key of the settlement management device, and transmits the settlement information given the second signature and subjected to the encryption processing to the client device, and wherein the client device checks validity of the second signature received from the settlement management device by using a public key corresponding to the private key of the settlement management device, and then outputs the settlement information to the data storage device. One of ordinary skill in the art would have been motivated to do this because it provides superior safety and convenience by preventing unauthorized individuals from accessing transmitted data (see Takayama, paragraph [0020]).

Referring to claims 6 and 14, Mansvelt et al. disclose a store device and a client device (see claims 5 and 13 above). Mansvelt et al. do not expressly disclose the store device receives the settlement completion information with the third signature, creates settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmits the settlement completion receipt information with the fourth signature to the client device, and wherein the settlement management device and the client device check validity of the fourth signature received from the store device by using a public key corresponding tot the

Art Unit: 3621

private key of the store device. Takayama discloses the store device (i.e. "the credit settlement terminal") receives the settlement completion information with the third signature, creates settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmits the settlement completion receipt information with the fourth signature to the client device (see paragraphs [0812]-[0814]) and wherein the settlement management device and the client device (i.e. "personal credit terminal") check validity of the fourth signature received from the store device by using a public key corresponding tot the private key of the store device (see paragraph [0111], lines 22-28). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Mansvelt to allow store device to receive the settlement completion information with the third signature, create settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmit the settlement completion receipt information with the fourth signature to the client device, and wherein the settlement management device and the client device check validity of the fourth signature received from the store device by using a public key corresponding tot the private key of the store device. One of ordinary skill in the art would have been motivated to do this because it provides an additional level of data security, thereby preventing unauthorized individuals from accessing the transmitted data.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mansvelt et al. as applied to claim 1 above, and further in view of US Patent No. 6338050 to Conklin et al.

Mansvelt et al. disclose a store device (see claim 1 above). Mansvelt et al. do not expressly disclose the store device is a mall including a plurality of lower store devices. Conklin

Art Unit: 3621

et al. disclose a settlement system including a store device, which is a mall including a plurality of lower store devices (see col. 2, lines 64-67). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Mansvelt et al. to include a mall including a plurality of lower store devices. One of ordinary skill in the art would have been motivated to do this because it provides versatility by allowing the user to shop at various stores.

14. Claims 18- 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linehan as applied to claims 17 and 22 respectively above, and further in view of Mansvelt et al.

Referring to claims 18,19 and 23, Linehan discloses the settlement management device (i.e. “issuing bank”) creates, based on the settlement request information from the store device (i.e. “merchant’s computer”), settlement information (i.e. “authorization token”) for making settlement (see col. 4, lines 31-38), wherein the settlement request information with the first signature is transmitted from the store device to the settlement management device through a client device (see col. 4, lines 10-23). Linehan does not expressly disclose settlement information for making settlement by the data storage device, subjects the settlement information to the encryption processing to a client device, and wherein the client device outputs the settlement information received from the settlement management device to the data storage device. Mansvelt et al. disclose settlement information for making settlement by the data storage device, subjects the settlement information to the encryption processing to a client device, and wherein the client device outputs the settlement information received from the settlement management device to the data storage device (see col. 4, lines 34-46; col. 6, liens 32-56). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art

Art Unit: 3621

to modify the device disclose by Linehan to include settlement information for making settlement by the data storage device, subjects the settlement information to the encryption processing to a client device, and wherein the client device outputs the settlement information received from the settlement management device to the data storage device. One of ordinary skill in the art would have been motivated to do this because it provides an additional level of security.

Referring to claim 20, Linehan discloses the settlement management device (i.e. “issuing bank”) creates settlement completion information, creates a third signature indicating validity of the settlement completion information (i.e. “authorization token”) by using the private key of the settlement device, and transmits the settlement completion information including the settlement information and given the third signature to the store device (i.e. “merchant’s computer”), and wherein the store device checks validity of the third signature received from the settlement management device by using the public key corresponding to the private key of the settlement management device (see col. 4, lines 31-44; col. 8, lines 63-65; col. 2, lines 40-42).

15. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linehan and Mansvelt et al. as applied to claim 20 above, and further in view of Takayama.

Linehan discloses the store device receives the settlement completion information (i.e. “authorization token”) with the third signature (see col. 4, lines 31-40). Linehan does not expressly disclose the store device creates settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmits the settlement completion receipt information with the fourth signature to the client device, and wherein the settlement management device and the client device check validity of the fourth signature

Art Unit: 3621

received from the store device by using a public key corresponding to the private key of the store device. Takayama discloses the store device (i.e. "the credit settlement terminal") creates settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmits the settlement completion receipt information with the fourth signature to the client device (see paragraphs [0812]-[0814]) and wherein the settlement management device and the client device (i.e. "personal credit terminal") check validity of the fourth signature received from the store device by using a public key corresponding tot the private key of the store device (see paragraph [0111], lines 22-28). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the system disclose by Linehan to allow store device to create settlement completion information receipt information with a fourth signature by using a private key of the store device, and transmit the settlement completion receipt information with the fourth signature to the client device, and wherein the settlement management device and the client device check validity of the fourth signature received from the store device by using a public key corresponding tot the private key of the store device. One of ordinary skill in the art would have been motivated to do this because it provides an additional level of data security, thereby preventing unauthorized individuals from accessing the transmitted data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jalatee Worjloh whose telephone number is 703-305-0057. The examiner can normally be reached on Mondays-Thursdays 8:30 - 7:00.

Art Unit: 3621

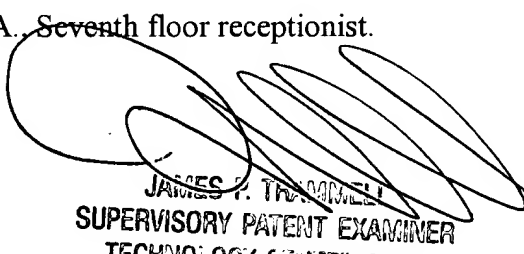
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for Regular/After Final Actions and 703-746-9443 for Non-Official/Draft.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450***

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive,
Arlington, V.A. Seventh floor receptionist.


**JAMES P. TRAMMELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3621**


**Jalate Worjloh
Patent Examiner
Art Unit 3621**

November 26, 2004